

ACCESSION NR: AP4040959

S/0020/64/156/005/1167/1169

AUTHOR: Rakova, G. V.; Yenikolopyan, N. S.

TITLE: Molecular weights of polymers produced by cation polymerization of trioxane

SOURCE: AN SSSR. Doklady*, v. 156, no. 5, 1964, 1167-1169

TOPIC TAGS: trioxane, paraformaldehyde, trioxane polymerization, trioxane cation polymerization, polymer molecular weight, polymer, methylene chloride, nitro benzene, dimethyl formamide, tin tetrachloride

ABSTRACT: The authors carried out this study because the molecular weight of a polymer is an important characteristic upon which some definite conclusions concerning the kinetics and polymerization mechanism can be made. Work was devoted to a study of the relationship of the molecular weight of the polymer, produced by trioxane polymerization, to the concentration of the monomer and to the degree of the reactions finality. The polymerization was carried out in solutions of methylene chloride and nitrobenzene at 30°C under the influence of tin tetrachloride. The viscosimetric technique was used to determine the

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molecular weight of the polymers. The viscosity of the polymer solutions in dimethyl formamide was measured at 150°C. The molecular weight was calculated by the equation

$$[\eta] = 4.4 \cdot 10^{-4} M^{0.8}$$

There is a linear relationship between the starting trioxane concentration in the solution and molecular weight of the polymer in both the methylene chloride and nitro benzene. There is an analogous relationship between the degree of the reactions completion and molecular weight of the polymer in both solvents.

Orig. art. has 2 figures.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR
(Institute of Chemical Physics, Academy of Sciences SSSR)

SUBMITTED: 13Feb64

ENCL: 00

SUB CODE: OC, CC / NO REP Sov; 001

OTHER: '002

Card 2/2

RAKOVA, G.V.; KOROTKOV, A.A.

Copolymerization of isoprene and divinyl by butyl lithium.
Dokl. AN SSSR 119 no.5:982-985 Ap '58. (MIRA 11:6)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR. Predstavleno
akademikom A.V. Topchiyevym.
(Isoprene) (Butadiene) (Lithium)

RAKOVA, G.V.; AVAKYAN, A.K.; ROMANOV, L.M.; YENIKOLOPYAN, N.S.

Cation polymerization kinetics of trioxane. Dokl. AN SSSR
156 no.6:1409-1411 Je '64. (MIRA 17:8)

1. Institut khimicheskoy fiziki AN SSSR. Predstavлено академиком
N.N. Semenovym.

L 8138-66 EWT(m)/EWP(j)/T RU

ACC NR: AP5025027

SOURCE CODE: UR/0286/65/000/016/0082/0082

AUTHORS: Romanov, L. M.; Semenov, N. I.; Yenikolopov, N. S.; Rakova, G. V.

ORG: none

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 82

TOPIC TAGS: polymer, polymerization, polyformaldehyde, Friedel Kraft catalyst

ABSTRACT: This Author Certificate presents a method for obtaining high-molecular weight polyformaldehyde by the polymerization of trioxane in an inert organic solvent in the presence of a Friedel-Kraft catalyst. To increase the polymerization rate, the process is carried out in the presence of polar organic substances having high dielectric constants (halogen derivatives of hydrocarbons, nitriles, and nitro-compounds of aliphatic and aromatic hydrocarbons).

SUB CODE: OC/ SUBM DATE: 30Jan62

Card 1/1

UDC: 678.644'141

RATKAJA 1

✓ Wolff's rearrangement of 1-diazo-3-bromo-4-phthalimido-2-butanones] Jiří Michálský and Irena Raková (Masaryk Unjv., Brno, Czech.), *J. Prakt. Chem.* 8, 181-5 (1959).
α-Bromo-β-phthalimidopropionic acid (10 g.) dissolved in 150 ml. SOCl_2 was kept simmering 2 hrs. on a H_2O bath, the excess of SOCl_2 distd. *in vacuo*, and the obtained acid chloride extd. with C_6H_6 and introduced slowly at -30° into an Et_2O soln. of CH_3N_2 (obtained from 15 g. nitrosomethylurea), and kept at this temp. 12 hrs. to yield 7.7 g. 1-diazo-3-bromo-4-phthalimido-2-butanone (I), yellow prisms, m. 116-18° (MeOH) (by a too fast addn. of the chloride, 1-chloro-3-bromo-4-phthalimido-2-butanone, m. 141°, is formed). To 8 g. I in 200 ml. freshly distd. MeOH, a suspension of Ag_2O in MeOH (from 6 g. AgNO_3) was added during 1 hr. After the violent liberation of N ceased, the soln. was boiled 11 hrs., treated shortly with activated C, and the MeOH distd. *in vacuo*. The remainder, consisting of γ-phthalimidocrotonic acid, pearly leaflets, m. 103-4° (MeOH), yield 4.9 g. L. G. Magitius.

4
2 pg (1/3)

LYSYI, A., redaktor; RAKOVA, I., tekhnicheskiy redaktor.

[Over-all competition in the "Zaporozhstal'" plant] Kompleksnoe
sorevнование на заводе "Запорожсталь". Мoskva, Izd-vo VTsSPS
Profizdat, 1953. 140 p. (MLRA 8:11)
(Socialist competition) (Steel industry)

RAKOVA, I.I.; SHEYMAN, I.M.

Characteristics of trace conditioned reflexes to a motor
stimulus. Trudy Inst.vys.nerv.déiat. Ser.fiziol. 7:249-256
'62. (MIRA 16:2)

(CONDITIONED RESPONSE)

RALKWA, Jaromila

Diffusion of radioisotopes in glass. Jaderne energie 8 no.2:
56-57 F '62

LEVIN, Ya.A.; FEDOTOVA, A.P.; RAYSOVA, N.F.; SAVICHEVA, G.A.; KUKHTIN, V.A.

Condensed heterocycles. Part 2: Condensation of 5-alky-3-amino
-1-3-amino-1,2,4-triazoles with acetoacetic ester. Zhur. ob. khim. 33
no.4:1309-1314 Ap '63. (MIRA 16:5)

1. Kazanskiy filial Nauchno-issledovatel'skogo kinofotoinstituta.
(Triazole) (Acetoacetic acid)

KUKNTIN, V.A.; KIRILLOVA, K.M.; SHAGIDULLIN, R.R.; SAMITOV, Yu.Yu.; LYAZINA,
N.A.; RAKOVA, N.F.

Some new types of the Arbuzov rearrangement. Part 14: Investigation
of the products of addition of trialkyl phosphites to diacetyl by
physical methods. Zhur.ob.khim. 32 no.6:2039-2046 Je '62.
(MIRA 15:6)

1. Kazanskiy filial nauchno-issledovatel'skogo kinofotoinstituta.
(Phosphorous acid) (Butanedione)

ACC NR: AP6018547

SOURCE CODE: UR/0181/66/008/006/1834/1838

AUTHOR: Predvoditelev, A. A.; Rakova, N. K.; Chebotareva, Ye. S.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvenny universitet)

TITLE: Investigation of the motion of dislocations in NaCl crystals during creep

SOURCE: Fizika tverdogo tela, v. 8, no. 6, 1966, 1834-1838

TOPIC TAGS: sodium chloride, creep, crystal dislocation phenomenon, relaxation process

ABSTRACT: This is a continuation of earlier work on NaCl crystals (FTT v. 7, 1081, 1965), in which it was shown that relaxation of stresses at room temperature is determined only by conservative motion of dislocations, and singularities in the law governing this motion were established. The purpose of the present investigation was to determine the motion of dislocations during creep in single-crystal NaCl at room temperature. Soft crystals were used with yield point 120 g/mm^2 and initial dislocation density $\sim 10^5 \text{ cm}^{-2}$. Special apparatus was constructed permitting strains of the order of 10^{-5} cm to be registered at room temperature. The motion of dislocations was investigated by the method of directly etching the samples under load. Quantitative investigations of the dislocation motion could be made only at stresses slightly below the yield point (50 g/mm^2), before intense dislocation multiplication could be observed. At 100 g/mm^2 and higher, the experiments failed because of the

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1. 06407-67
ACC NR: AP6018547

large dislocation density. No pronounced dislocation multiplication was observed during the creep. It is concluded that the creep is due only to displacement of already existing dislocations, produced during the initial deformation of the crystal. Some 40% of the dislocations capable of motion participate in the creep. An expression is derived for the calculation of the creep from the measured motion parameters. The good agreement obtained between the calculated and the experimental data gives grounds for assuming, as in the earlier study of stress relaxation, that the non-stationary creep of single-crystal NaCl at room temperature is determined by redistribution of dislocations within the crystal. It is pointed out, however, that there are essential differences in the dislocation motion during creep and relaxation, so data on creep do not apply to dislocation, and vice versa. Orig. art. has: 5 figures, 1 formula, and 2 tables.

SUB CODE: 20/ SUBM DATE: 15Nov65/ ORIG REF: 010/ OTH REF: 016

Cord 2/2 cjk

86706

S/180/60/000/006/026/030

E021/E335

18-7520

AUTHORS: Rakova, N.K. and Shvidkovskiy, Ye.G. (Moscow)

TITLE: Crystallisation of Tin from the Supercooled State

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye

tekhnicheskikh nauk, Metallurgiya i toplivo,

1960, No. 6, pp. 137 - 142

TEXT: Chemically pure tin was used in the investigation. The transition from the supercooled to the solid state was followed by measuring electrical resistance. It was measured by a method proposed by Goryaga (Ref. 1). A graphite crucible was filled with metal and placed in a glass flask connected to a vacuum pump (Fig. 1). The crucible was heated until the metal reached 20 - 30 °C above the melting point. It was then slowly cooled. Two rates were employed - 0.4 and 6 °C/min. Fig. 2a is a typical record of the resistance of the sample against time. There is first a sharp change in resistance corresponding to a high rate of increase in the mass of the solid phase, and then a very slow change in resistance to the value corresponding to a solid sample. The first period

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S/180/60/000/006/026/030
E021/E335

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Crystallisation of Tin from the Supercooled State

lasted 0.5 - 3 seconds and the second period several minutes. Fig. 4 shows a similar curve for the change in resistance and also a curve for the change in temperature at the walls of the crucible. There was a sharp increase in temperature when the resistance dropped, corresponding to the initial crystallisation. From the results, the quantity of tin crystallising was calculated assuming that solidification began at the walls of the crucible. Fig. 2b shows M_s/M against time where M_s is the mass of solidified material and M is the total mass of the sample. The quantity crystallising in the first rapid period depends on the dimensions of the crucible. For a small crucible it was 12 - 47%, and for a large crucible 9 - 18% of the initial material. Fig. 7 shows the relation between the rate of solidification and time. Fig. 7a is for solidification in a graphite crucible and

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S/180/60/000/006/026/030
E021/E335

Crystallisation of Tin from the Supercooled State

Fig. 7b in a similar crucible with a thermocouple immersed in the liquid metal. Curve 1 in Fig. 7a and Curve 2 in Fig. 7b relate to the same degree of initial supercooling. The mean rate of solidification in the first period dropped from 57 to 7% per second when a thermocouple was inserted. The reason for this change when a foreign body was added is not clear. There are 7 figures and 3 Soviet references.

SUBMITTED: August 26, 1960

✓

Card 3/3

RAKOVA, N.K.; GORYAGA, G.I.; BELOZEROVA, E.P.

Investigating electric conductivity of certain metals in solid
and liquid state. Nauch. dokl. vys. shkoly; met. no.2:200-204
'58. (MIRA 11:9)

1. Moskovskiy gosudarstvenny universitet, fizicheskiy fakul'tet.
(Metals--Electric properties)
(Liquid metals--Electric properties)

KHUDYAKOV, V.V., kand.tekhn.nauk; RAKOVA, N.K., inzh.; LAZAREV, N.S., inzh.

Simulation of the power transformers of a d.c. power transmission
system. Vest. elektroprom. 33 no.7:20-26 J1 '62. (MIRA 15:11)
(Electric transformers)
(Electric power distribution--Direct current)

RAKOVA, N. K.

"Results of an Investigation of the Electrical Conductivity of Bismuth,
Lead, and Tin in Solid and Liquid States", a paper presented at the second
conference on the Liquid State of Matter, Kiev, 30 May to 3 June 1955, Usp. Fiz.
April 1955

K. Goryaga, N. K. Rako
GORYAGA, G.I.; RAKOVA, N.K.

Effect of insoluble additions on the viscosity of bismuth-lead
alloys. Vest.Mosk.un. Ser.mat.,mekh.,astron.,fiz.,khim.11
no.1:85-88 '56. (MIRA 10:12)

1. Kafedra molekulyarnoy fiziki Moskovskogo universiteta.
(Viscosity) (Bismuth-lead alloys)

L 52526-65 EWT(1)/EWT(m)/T/EWP(t)/EEC(b)-2/EWP(b)/EWA(c) PI-4 IJP(c) JD/55
ACCESSION NR: AP5010714 UR/0181/65/007/004/1081/1085 25
22

AUTHOR: Rakova, N. K.; Predvoditelev, A. A.

TITLE: Motion of dislocations and relaxation of stresses in sodium chloride crystals 16

SOURCE: Fizika tverdogo tela, v. 7, no. 4, 1965, 1081-1085

TOPIC TAGS: sodium chloride, dislocation motion, stress relaxation, selective etching

ABSTRACT: An investigation was made of the motion of dislocation and stress relaxation in single crystals of sodium chloride. The stress relaxation was measured with a relaxometer which made it possible to record directly the variation of the stress with time (V. R. Regel' and G. A. Dubov, PTE No. 6, 102, 1958). The test samples measured $5 \times 5 \times 10$ - $8 \times 8 \times 16$ mm and were cleaved from one large single crystal. The initial average dislocation density in the samples was $2 \times 10^5 \text{ cm}^{-2}$. The sample was continuously etched during the course of relaxation, making it possible to investigate the dislocation motion. The etchant used was a saturated solution of cadmium oxide and a mixture of butyl and methyl alcohols (5:3 ratio).

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L 52526-65

ACCESSION NR: AP501071⁴

3

This etchant made it also possible to distinguish between growth dislocations and dislocations due to strain. The results indicate that the stress relaxation in sodium chloride crystals are determined during the initial stage completely by the motion of the dislocations. Methods of calculating the amount of stress relaxation due to the motion of dislocations are indicated. "The authors thank Professor Ye. G. Shvidkovskiy for valuable advice, and E. Tupikin for performing preliminary experiments." Orig. art. has: 5 figures, 1 formula, and 1 table.

ASSOCIATION: Moskovskiy gosudarstvenny universitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 06Oct64

ENCL: 00

SUB CODE: SS, IC

NR REF Sov: 009

OTHER: 005

llc
Card 2/2

KLYSHEV, L.K.; RAKOVA, N.M.

Effect of the salinization of the substrate on the protein composition of the roots of pea seedlings. Trudy Inst.bot.AN Kazakh.SSR
20:156-165 '64. (MIRA 18:1)

RAKOVA, N.V.

Calculating the yields and losses of aromatic substances in the raw materials and semiprocessed products of the fruit liqueur industry. Trudy TSNIISP.no. 8:144-151 '59. (MIRA 14:1)
(Liquor industry)

SYNTHETIC MEDICA Sec 16 Vol 7/7 Cancer July 59

2531. A study of tumours of the tunica vasculosa of the eye by the method of tissue culture (Russian text) LEVKOVA E. F. and RAKOVA S. S. *Izkh. Patol.* 1958, 20/8 (42-52) Illus. 11

In order to establish a classification scheme for tumours of the tunica vasculosa of the eye, the behaviour of various types of such neoplasm in 60 series of tissue cultures was studied. Specific information about the original tumours is not presented. Although several different types of growth in tissue culture could be distinguished, these could not be correlated with the morphologic characteristics of the original neoplasms. Only in one instance did the whorl-like growth of the cells in tissue culture faithfully reflect the same type of growth in the original tumour. It was found that in all tumours of this type the presence of abundant pigment retarded or even completely suppressed growth in vitro. According to the authors, this is due to necrosis of cells bearing large amounts of pigment. Pigmented tumours do not produce pigment-bearing cells in tissue culture. The type of growth obtained in vitro confirmed the previous conclusions of the authors that tumours of the tunica vasculosa of the eye are derived from neuroglia and do not represent melanomas.

Wilson - Dearborn, Mich.

LEVKOYEVA, E.F., RAKOVA, S.S. (Moskva)

Studies of ocular angiomas using tissue culture [with summary in English]. Arkh.pat. 20 no.8:42-54 '58 (MIRA 11:9)

1. Iz patologoanatomiceskoy laboratorii (zav. - prof. E.F. Levkoyeva)
Instituta oftal'mologii imeni Gel'mgol'tsa.

(EYE, neoplasms,
angioma, tissue culture (Rus))

(ANGIOMA,
eye, tissue culture (Rus))

(TISSUE CULTURES,
angioma from eye (Rus))

DOMIN, N.A., PAKOV, T.P., MISHCHENKO, V.A.

Polymethylene cycles. Part 49. Effect of lithium and sodium
on 2,5-dibromo-1,3-cyclohexadiene. Zhur. ob. khim. 35 no.3:
456-459. Mr 165. (MIRA 18:4)

L. Leningradskiy gosudarstvennyy universitet.

I 56664-65 EWT(m)/EMP(j) PC-1474 RM
ACCESSION NR: AP5017832

UR/0286/65/000/011/0076/0076
678.682.002.2

15

B

AUTHOR: Moshchinskaya, N. K.; Rakova, T. A.

TITLE: A method for producing novolacs. (Class 39, No. 171551)

SOURCE: Byulleten' izobreteni i tovarnykh znakov, no. 11, 1965, 76

TOPIC TAGS: plastic, phenol-aldehyde resin, thermosetting plastic, thermoreactive phenolic resin

ABSTRACT: This Author's Certificate introduces a method for producing novolacs hardened with utotropin or other widely used hardeners. The resins may be used for producing molding powders.¹⁵ The novolacs are produced by polycondensation of chlorine derivatives of methylated aromatic hydrocarbons (containing at least two methyl groups in the molecule) with phenols. The excess phenols are then distilled off under vacuum. The heat resistance and hardening rate of the resins is increased by using chlorine derivatives with at least three chlorine atoms in the side chains for every two methyl groups.

Card 1/2

L 56664-65
ACCESSION NR: AP5017832

ASSOCIATION: none

SUBMITTED: 30Ju163

ENCL: 00

SUB CODE: MT

NO REF SOV: 000

OTHER: 000

X82
Card 2/2

"APPROVED FOR RELEASE: Tuesday, August 01, 2000

CIA-RDP86-00513R001344

RAKOVA, V.

"About birds and animals." Reviewed by V.Rakova. IUn. nat. no.11:
31 0 '62. (MIRA 16:5)
(Nature study)

APPROVED FOR RELEASE: Tuesday, August 01, 2000

CIA-RDP86-00513R0013441

R&KOVA, V.

Distribution of colloid zirconyl phosphate solutions of various dispersion degrees in the animal organism. Trudy TSIU 71:170-179 '64. (MIRA 18:6)

I. Kafedra meditsinskoy radiologii (zav. prof. V.K. Modestov)
TSentral'nogo instituta usovershenstvovaniya vrachey.

D'imirita izuchenii i issledovaniy po voprosam "Voprosy Sel'skogo Khozyaistva"
on the 75th Anniversary of K. I. Skryabin, Izdat. Nauk. SSSR, 1953, page 575
Moscow Tech. Inst. of Fish Industry & Economy im Al. Mikoyan.

RAKOV, V. M.

Dissertation: "Invasion of Ide and Orf and Their Effect on the Fish Organism."
Cand Biol Sci, Moscow Technical Inst of the Fish Industry and Economy imeni A.
I. Mikoyan, 21 Apr 54. (Vechernaya Moskva, Moscow, 12 Apr 54)

SO: SUM 243, 19 Oct 1954

RAKOVA, V.M.

Parasite fauna of orf. Vop. ikht. no.13:182-188 '59.
(MIRA 13:3)

1.Moskovskiy tekhnicheskiy institut rybnoy promyshlennosti i khozyaystva
im. A.I. Mikoyana.
(Parasites--Carp)

RAKOVA, Yekaterina Ivanovna, dots.; LEONOV, T.S., red.; RAKITIN,
I.T., tekhn. red.

[Russian grain] Khleb Rossii. Moskva, Izd-vo "Znanie,"
1963. 48 p. (Novoe v zhizni, nauke, tekhnike. V Serii:
Sel'skoe khozaiistvo, no.8) (MIRA 16:4)

1. Moskovskaya sel'skokhozyaystvennaya akademiya im.
K.A.Timiryazeva (for Rakova).
(Grain)

L 4268-66 EWT(1)/EWT(m)/EWP(1)/I/EWP(6)/EWP(6) IJP(c) JD/00
ACCESSION NR: AP5024565 UR/0070/85/010/005/0758/0757

548.5:539.23

38
32
B

44,55

44,55

44,55

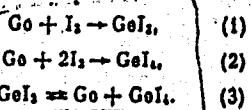
AUTHOR: Kurbatov, B. S.; Rakova, Ye. V.; Kurov, G. A.

TITLE: Some aspects of the preparation of germanium films by the sandwich method in a closed system

SOURCE: Kristallografiya, v. 10, no. 5, 1965, 756-757

TOPIC TAGS: single crystal growing, germanium single crystal, epitaxial growing

ABSTRACT: The paper describes a device for preparing epitaxial germanium films in a closed system (see Fig. 1 of the Enclosure) over a relatively wide temperature range. The quick-response heaters make it easy to switch from one set of conditions to another; this is particularly important for obtaining junction layers between film and substrate. The source and substrate used were single-crystal n-type germanium wafers, and the iodide process was carried out by evaporating iodine; the process consists of the reactions



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L-4268-66

ACCESSION NR: AP5024565

6

The growth of an epitaxial layer of germanium was observed on the substrate. On the wafer of the source, reaction (3) is displaced toward the formation of diiodide, and on the substrate, toward its disproportionation. The technique differs from growing in a hydrogen stream in that the growth rates are higher (up to 7 μ /min). "I. I. Kryzhanovskiy participated in the work." Orig. art. has: 2 figures.

44,55

ASSOCIATION: Institut kristallografi (Institute of Crystallography) 44,55

SUBMITTED: 25Apr65

ENCL: 01

SUB CODE: SS

NO REF SOV: 000

OTHER: 004

Card 2/3

14268-66
ACCESSION NR: AP5024565

ENCLOSURE: 01

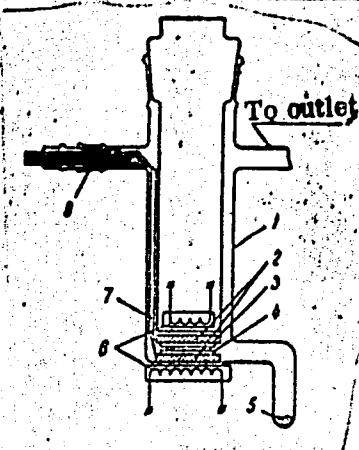


Figure 1. Epitaxial germanium film preparation device. 1 - quartz reactor; 2 - graphite supports for stabilizing the temperature; 3 - germanium wafer source; 4 - germanium wafer substrate; 5 - iodine; 6 - heaters; 7 - thermocouple; 8 - thermocouple leads.

Card 3/3 DP

R A K O V A, R.S.

PLATE I BOOK EXPOSITIONS	809/2547
Literature. Glavnaya gavitatsionnaya observatoriya	
Problemy gavitatsionnoy seismologii (problemy ikh dinamiki i teoriya)	
Zadaniya, diskusii i zadaniya. 1999. 91 p. (Series: Glavnaya gavitatsionnaya obser	
vernija sluzhby. 1,200 copies printed.	
Sponsoring Agency: Glavnaya gavitatsionnaya observatoriya sluzhby	
priv. Soveta Ministrov SSSR.	
M. (Title page); M.I. Tulin, Doctor of Physical and Mathematical Sciences	
and N.Ye. Savchenko, Doctor of Physical and Mathematical Sciences; Ed.	
(inside book) L.P. Indakov; Tech. Ed.: O.G. Vlachikov.	
Foreword: This issue of the Geometrical Institute's "Transactions for	
scientific workers and specialists in dynamic and synoptic meteorology."	
Contents: This collection of articles treats problems in dynamic meteorology.	
The articles, for the most part, discuss computational methods of forecasting	
meteoro logically elements. Closely related to this is a study based at determining	
vertical velocities according to different vertical data. No precedences	
are mentioned. References accompany each article.	
Tulin, M.I., N.I. Yarovenko, I.V. Rubtsova, L.S. Orlova, and P.A. Solntsev.	20
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Layer Displacements	64
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Number on the Criterion of Intense Standard Turbulence	85

RAKOVCHUK, G.M. (Kiyev)

Succession-type multistage controller for adaptive control systems.
Avtom. i telem. 24 no.11:1501-1513 N '63. (MIRA 16:12)

40958

S/102/62/000/004/002/006
D201/D308

16 800.

AUTHOR:

Rakovchuk, H. M. (Kiev)

TITLE:

Solution of some problems of analysis and synthesis of sampled-data systems from their transfer matrices. Part II

PERIODICAL:

Avtomatyka, no. 4, 1962, 23-32

TEXT: The author applies modified transfer matrices, obtained from modified z-transformation, to the analysis and/or synthesis of sampled-data systems with either constant or variable parameters. For systems with constant parameters, a set of equations is obtained which, according to the problem, may be used for: (1) determining the continuous output of a given system with typical inputs; (2) determining the design parameters of a given system, resulting in the required response to typical inputs (synthesis of parameters); (3) the synthesis of a sampled-data system which satisfies the required response to typical inputs.

Card 1/2

Solution of some...

S/102/62/000/004/002/006
D201/D308

The solution of problems of analysis and synthesis of systems with variable parameters consists in formulating the modified transfer matrix and the matrix equation of the system by separating the link with variable parameters from the complete structural network, according to the method given in the first part of this paper. From the matrix equation thus obtained, a system of equations is derived for the values of the variable parameter γ_n which produces the required output for typical inputs. The modified transfer matrices are given for the following networks: a relaxation circuit, differentiating, integrating and double integrating circuits, closed systems of the 1st, 2nd and 3rd order. There are 2 figures.

SUBMITTED: November 14, 1960

Card 2/2

S/102/61/000/002/002/005
D251/D302

16.6000

AUTHOR: Rakovchuk, H.M. (Kyyiv)

TITLE: Solving some problems of analysis and synthesis of pulse systems by their transfer functions (Part I)

PERIODICAL: Avtomatyka, no. 2, 1961, 10 - 22

TEXT: The author observes that in the study of ordinary pulse systems and also of many self-adjusting systems, the need often arises to have a picture of transient responses to type action for various values of their parameters, or conversely, of determining the values of the variable parameters for which the desired response may be guaranteed for a given input signal. Making use of the functions and transformations which occur in the works of Ya.Z. Tsypkin (Ref. 1: Teoriya impul'snykh sistem (Theory of Impulse Systems) Fizmatgiz, 1958), V.P. Pyerov (Ref. 2: Statisticheskiy sintez impul'snykh sistem (Statistical Synthesis of Impulse Systems) Sov. radio, 1959); F.M. Kilin (Ref. 3: Avtomatika i telemekhanika, no. 12, 1957) and G.P. Tartakovskiy (Ref. 4: K teorii lineynykh impul'snykh sistem s peremennymi parametrami (On the Theory of Linear Impulse Systems) Card 1/2

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

RAKOVEC, I.

"The cave lions (Felis spelaea Goldf.) from Postojna cavern", p. 127 (Razprave. Dissertationes Vol. 1, 1951, Ljubljana)

SO: Monthly List of ~~new~~ European Accessions, Vol. 2, No. 9, Library of Congress, September 1953, Uncl.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

RAKOVEC, I.

"Remains of the mastodon (Mastodon arvernensis Croiz. et Job.) in Styria, Slovenia",
p. 173 (Razprave Dissertationes Vol. 1, 1951, Ljubljana)

SO: Monthly List of East European Acquisitions, Vol. 2, No 9
Library of Congress, September 1953, Uncl.

RAKOVEC, I., dr.

Proposal of the statute of the Faculty of Natural Science and of
the teaching programs for geology in the Ljubljana University.
Geologija Slov 6:331 '60 (publ.'61).

RAKVEC, O.

"The remnants of European elk in Yugoslavia."

p.1

p. 1 (Geoloski Anal Balkanskega Poluostrava) Vol. 24, 1956
Belgrade, Yugoslavia

SO: Monthly Index of East European Accessions (EFAI) LC. Vol. 7, no. 4,
April 1956

RAKOVIC, Slavko; LOVSIL, Stane

Aireogenital syndrome. Zdrav. vestn. 34 no.3:43-49 '65.

1. Kirurgicna klinika medicinske fakultete v Ljubljani (predstojnik: prof. dr. Martin Benedik); Otroški oddelek bolnišnice Koper (predstojnik: dr. Branko Salamun).

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001344

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0013441

RAKOVEC, S.

Partial nephrectomy in tuberclosis. Acta chur.iugosl.2 no.2-3:
136-145 1955.

1. Kururgicna klinika Medicinske fakultete v Ljubljani (predstovnik: prof. dr B. Lavric)
(TUBERCULOSIS, RENAL, surg.
nephrectomy, partial, results(S1))

RAKOVEC, Slavko; PAVLOVIC, Stanoje

A case of uteroplacental apoplexy occurring in the 8th month
of pregnancy and accompanied by anuria. Srpski arh. celok.
lek. 91 no.1:73-77 Ja '63.

1. Hirurška klinika Medicinskog fakulteta Univerziteta u
Ljubljani Upravnik: akad. prof. dr. Božidar Lavrič. Gineko-
losko-akusersko oddeljenje Opste bolnice u Zajecaru Nacelnik:
dr. Stanoje Pavlovic.
(PREGNANCY COMPLICATIONS) (ANURIA)
(UTERINE HEMORRHAGE)

[] YUGOSLAVIA

Slavko RAKOVEC, Surgical Clinic of Medical Faculty of University (Upravna klinika Medicinske fakultete Vscucilisca), Head (Upravnik): Academician Prof Dr Bozidar LAVRIC, Ljubljana; and Stanoje PAVLOVIC, Department of Obstetrics and Gynecology of General Hospital (Ginekološko akusersko odeljenje Opste bolnice), Chief (Kacelnik) Dr Stanoje PAVLOVIC, Zajecar.

"Case of Utero-Placental Apoplexy in the Eighth Month of Pregnancy and Accompanied by Anuria."

Belgrade, Srpski Arhiv za Celokupno Lekarstvo, Vol 91, No 1, Jan 63;
pp 73-77.

Abstract [French summary modified]: Interesting report of severe case in girl aged 19. After removal of dead fetus and transfusion, poor condition, progressive renal shutdown, all therapy failed, anuria and high azotemia, critical hyperkalemia. Emergency transportation from Zajecar to the artificial kidney installation at the Urology Clinic in Ljubljana (well over 900 Km.!) where first hemodialytic procedure eliminated 67.7 Gm. urea and 4.36 Gm. K; a second hemodialysis was

[] 1/2

[Belgrade, Srpski Arhiv za Celokupno Lekarstvo, Vol 91, No 1, Jan 63;
pp 73-77.

necessary to bring about the usual polyuria following anuria and rapid
clinical normalization with discharge symptomless although still with
slight residual renal impairment as diagnosable by decreased renal
concentrating ability. Graph, table; 6 Yugoslav and 4 Western refs.

2/2

31

RAKOVYANU, V. [Rakovyanu, V.], prof.; NEYMAN, G. [Neiman, G.], d-r;
MUNTEMESCU, M. [Muntenescu, M.], d-r (Bukarest, Rumyniya)

Study of labyrinthine syndromes of influenzal origin. Vest.
(MIRA 15:1)
otorin. no.6:67-72 '61.
(INFLUENZA) (LABYRINTH (EAR)--DISEASES)

MORGENSHTERN, V.S.; RAKOVETS, A.N., red.

[Biological purification of waste waters from the wood-pulp industry] Biologicheskaiia ochistka stochnykh vod tselliuloznogo proizvodstva. Moskva, TSentr. in-t tekhn. informatsii i ekon. issledovaniii po lesnoi, bumazhnoi i derevobrabatyvaiushchei promyshl., 1962. 31 p.

(MIRA 17:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tsellyulozno-bumazhnoy promyshlennosti (for Morgenshtern).

RAKOVETS, C.A.

Role of recent movements in the formation of the relief of the
Gornyy Altai. Izv. Alt. otd. Geog. ob-vya SSSR no.5:80-81 '65.
(MIRA 18:12)

1. Vsesoyuznyy aerogeologicheskiy trest.

RAKOVETS, O.A.; SHMIDT, G.A.

Quaternary glaciation of the Gornyy Altai. Trudy Kom. chetv.per. 22:
(MIRA 17:2)
5-31 '63.

RAKOUTS D.A.

U.S.S.R. Institute of Geodesy and Cartography
Study, No. 6: Material VII. Vsesoyuznye nauchno-tekhnicheskie sovetskiye
semya, No. 25, Novosibirsk - 1. December 1956. Materials of the
All-Union Interdepartmental Conference on Aerial Surveying, 25
November - 1 December 1956, Moscow, Geodesy Publishing House,
5,000 copies printed.

Ed. or Publishing House: V. G. Filakov, Tech. Ed. O. A. Kurov
Editorial Committee: N. G. Sall, Corresponding Member, Academy of
Sciences USSR; A. A. Lomtadze, V. P. Kirillovichenko (temp. Ed.),
and V. N. Solodov.

PURPOSE: This publication is intended for photogrammists, geologists,
geographers, and other scientific and technical personnel concerned
with aerial photography.

CONTENTS: This issue contains the Transactions of the Laboratory of Aerial
Survey Methods, part of materials presented at
the 17th All-Union Interdepartmental Conference on Aerial Surveying
which took place in Leningrad, November 25 through December 1, 1956.
Articles treat problems dealing with the extension and application
of aerial survey methods in geological, geomorphological, and geo-
physical investigations. Special attention is directed to aerial
photography in specific geological and geomorphological situations and
survey work under different conditions. The techniques of joint
photographic and serial photography are described.
References accompany individual articles.

TABLE OF CONTENTS:

- Arshabov, I. B. [All-Union Trust for Aerial Geological Surveying].
Article from the Application of Aerial-Survey Methods to Integrated
Geological Surveys of Desert and Semi-Desert Areas Near the
Caspian Sea. 70
- Bulayev, O. A. [Borovnaya Geologopolitologiya Institute - All-Union
Prospekt Office]. Problems of the Northeastern Part of the
Posto-Japlin Area (Central Malyan Upland) According to Aerial-
Geophysical Survey Data. 40
- Burov, V. S., and B. F. Krashilnikov [All-Union Trust for Aerial
Geological Survey]. Sample of Aerogeological Interpretation
Presented in the Krasninsk Basin [Depression]. 92
- Vol'nin, A. V. [Laboratory of Aerial Survey Methods, Academy of Sciences
USSR]. Geological Structures of Fertile Formations in the Transbaikalia
Region (Central Kazakhstan). 101
- Vol'nin, A. V. [All-Union Trust for Aerial Geological Surveying].
Article from the Application of Geology Aerial
Geological Surveying of Gor'kiy Alatau. 113
- Vol'nin, A. V., and V. N. Kurov [Laboratory of Aerial Survey Methods,
Academy of Sciences USSR]. Application of Aerial Survey Methods in the
Exploration of Fertile Volcanic Deposits. 120
- Vol'nin, A. V., and V. A. Potokhin [All-Union Trust for Aerial
Geological Surveying]. Results of Applying Aerial-Survey Methods
to Geological Observations Carried Out Within the Scope of
Geological and Hydrogeological Explorations. 126
- Borodavko, M. A. [Laboratory of Aerial Survey Methods, Academy of Sciences
USSR]. Problems Related to the Geological Interpretation of the
Properties of Rock (Determined in the Study of Gold-bearing
Deposits of Western Turkmenistan). 130
- Sukharev, I. N. [All-Union Trust for Aerial Geological Surveying].
Article from the Office Layout of the Popigay Gold Mine
Basis for Geological Studies. 139
- Sukharev, Z. I. [Laboratory of Aerial Survey Methods, Academy of Sciences
USSR]. Application of Aerial Photography to Geomorphological Studies
of Shores and Lakesides. 145
- Yel'yan, I. A. [Laboratory of Aerial Survey Methods, Academy of Sciences
USSR]. Certain Aspects of Geomorphological Interpretation of Aerial
Photographs of Deserts and Steppes. 150
- Brunnich, A. Ye. [Laboratory of Geobiology, All-Union Laboratory
of Paleontology, Academy of Sciences USSR]. The Role of Aerial
Survey Methods in Studying Volcanic Regions. 173

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CIA-RDP86-00513R001344

LUNGERSGAUZEN, G.F.; RAKOVETS, O.A.

New data on Tertiary stratigraphy of the Gornyy Altai. Trudy
(MIRA 12:6)
VAGT no.4:79-91 '58.
(Altai Mountains--Geology stratigraphic)

APPROVED FOR RELEASE: Tuesday, August 01, 2000

CIA-RDP86-00513R0013441

RAKOVETS, O. A.

RAKOVETS, O. A. - "Geomorphology of the Area of the Don-Medvedit Upheaval." Sub 31 May 52, Moscow Oblast Pedagogical Inst. (Dissertation for the Degree of Candidate in Geographical Sciences).

SO: Vechernaya Moskva January-December 1952

BATURIN, V.V., glav. red.; BRYUKHANOV, V.N., red.; TAIKKEI', I.M., red.; VOSKRESEN'SKII, Ye.N., red.; IL'INA, N.S., red.; LEONOV, B.N., red.; LUNGENSOAUZIN, G.F., red.; PRIBAKYA, V.M., red.; MORALIN, V.I., red.; ROKOVITSA, O.A., red.

[Methods for the interpretation of the materials of aerial photography in geological studies; materials] Metody de-shifrirovaniia aerofotomaterialov pri geologicheskikh issledovaniyakh; materialy. Glav. red. V.V.Baturin, V.N. Bryukhanov, I.M.Taikei'. Moskva, Izd-vo "Nedra," 1964. 150 p. (MIRA 17:7)

1. Vsesoyuznyy seminar po geologicheskому de-shifrirovaniyu pri geologicheskikh issledovaniyakh, Moscow, 1961.

L 00080-67 EXP(1) GW/00
ACC NR: AT6022492

(A)

SOURCE CODE: UR/0000/65/000/000/0085/0089

AUTHOR: Kaletskaya, M. S.; Rakovets, O. A.; Rantoman, Ye. Ya.

ORG: none

TITLE: Legends for geomorphological maps of mountainous regions on the scale of 1:1,000,000 (based on Tien Shen, the Altai, and the Urals)

SOURCE: AN SSSR. Otdeleniye nauk o Zemle. Geomorfologicheskaya komissiya. Metodika geomorfologicheskogo kartirovaniya (Methods of geomorphological mapping). Moscow, Izd-vo Nauka, 1965, 85-89

TOPIC TAGS: geomorphology, cartography, topography, aerial photography

ABSTRACT: The authors emphasize the need for clear and consistent legends for geomorphological maps of vast mountainous regions and propose a legend which can be used to depict the morphology and development stage of the relief on a single map. The legend lists 10 basic stages in the development of the relief (I-Mesozoic, II-Cretaceous, III-Upper Cretaceous, IV-Paleogene, V-Neogene, VI-Pliocene Lower Quaternary, VII-Lower Quaternary, VIII-Middle Quaternary, IX-Upper Quaternary and X-Holocene) and three broad stages of development: Pre-Quaternary, Pre-Neogene, and Quaternary. Morphological types of relief are broken down into mountains, foothills, and plains between mountains and plains of large river valleys and subgrouping of these are given. Genesis of

Card 1/2

L 09080-67

ACC NR: AT6022492

plains is subdivided into *depositional* (alluvial, lacustrine, marine, proluvial, morainal, fluvio-glacial) and *denudational* (subaerial, abrasional). The use of colors in various shadings to depict altitude and relief features is also described. The authors note that in compiling a map according to the proposed legend, a number of key areas must be mapped on a scale of 1:100,000. Maps made according to this legend are useful in prospecting for minerals and in determining the degree of tectonic activity in a given area at a given stage of its development and in the study of the history of the formation of recent tectonic structures.

SUB CODE: 08/ SUBM DATE: 25Sep65

b/p
Card 2/2

Rakovit, K.

2

Rakovit, K. Inequalities for absolute values and for coefficients of certain regular function. Acta Fac. Nat. Univ. Carol., Prague, no. 172 (1939); 28-31 (1946). (Czech)
English summary)

The author presents a review of inequalities for functions of different types all of which are analytic in $|z| < 1$. Besides bounds for the absolute values of the functions, bounds for the coefficients of their power series are considered, their interdependence discussed and ways of improving them indicated. The classes considered include univalent and p -valent functions, functions not assuming certain values, and convex functions. František Wolf (Berkeley, Calif.).

Some good

Source: Mathematical Reviews, 1948, Vol. 9, No. 5

RAKOVIC, M.

Advances in the use of neutron activation analysis in biology and medicine (1960-1962). Cas.lek.cesk. 102. no.50: 221-226 13 D'63.

1. Biofyzikalni ustav fakulty vseobecneho lekarstvi KU v Praze;
prednosta: doc.dr. Z.Dienstbier.

*

RAKOVIC, Miloslav; TALPOVA, Helena

Sodium determination in filtration paper by the method
of neutron activation analysis. Chem prum 14 no. 3:
152 Mr '64.

- Department of Medical Physics and Nuclear Medicine
of the Faculty of General Medicine, Charles University,
Prague.

RAKOVIC, Miloslav

Use of the neutron activation analysis for determining foreign matter and impurities in materials used for making reactors.
Jaderna energie 8 no.4:127-130 Ap '62.

1. Katedra lekarske fyziky a nuklearni mediciny fakulty
vseobecneho lekarstvi Karlovy university.

RAKOVIC, M.

Seminar on activation analysis. Chem. listy 58 no. 4:491-492
Ap '64.

RAKOVIC, Miloslav

Activation analysis of neutrons combined with paper chromatography.
Chem listy 58 no.10:1141-1146 O '64.

1. Chair of Medical Physics and Nuclear Medicine, Faculty of
General Medicine, Charles University, Prague.

RAKOVIC, M.; TALPOVA, H.; LANGEROVA, I.

Determination of potassium in biological material with the
neutron activation analysis method. Cas. lek. cesk. 104 no.11:
297-303 19 Mr'65.

1. Katedra lekarske fyziky a nuklearni mediciny fakulty vseobec-
neho lekarstvi Karlovy University, Praha (vedouci: doc. dr.
Z. Dienstbier, CSc.).

RA (CIV), Lileslav; Teplicka, Helena

Determination of sodium in some biologic tissues by neutron activation analysis. Jaderná energie 10 no. 3:81-85 Mr '64.

1. Department of Medical Physics and Nuclear Medicine of the Faculty of General Medicine, Charles University, Prague.

CZECHOSLOVAKIA

RAKOVIC, M., Engineer

Biophysical Institute of the Faculty of General Medicine of
Charles University (Biofyzikalni ustav fakulty vseobec-
neho lekarstvi KU) Prague

Prague, Prakticky lekar, No 2, 1963, pp 44-46

"Biophysical Problems of Cellular Permeability."

RAKOVIC, M.

"Principles of nuclear chemistry" by V.Majer. Reviewed by
M.Rakovic. Coll Cs Chem 27 no.12:3079-3080 D '62.

RAKOVIC, M.

Use of neutron activation analysis in biology and medicine. Cas.
lek.cesk. 99 no.43:Lek Veda Zahr 220-225 21 0 '60.

1. Katedra lekarske fyziky a nuklearni mediciny FVL UK v Praze,
prednosta doc. MUDr. Zdenek Dienstbier.
(RADIOMETRY)
(CHEMICAL ANALYSIS)

RAKOVIC, M.

Changes in calcium and magnesium metabolism after irradiation. Cas.
lek. cesk. 101 no.50:254-255 14 D '62.

1. Biofyzikalni ustav fakulty vseobecneho lekarstvi KU v Praze,
prednosta doc. dr. Zd. Dienstbier.
(CALCIUM METABOLISM DISORDERS) (MAGNESIUM) (BONE AND BONES)
(TEETH) (RADIATION INJURY)

RAKOVIC, M.

Metabolic changes of sodium, potassium and chloride ions in burns.
Cas. lek. cesk. 101 no.38: Lek Ved Zahr:190-195 21 S '62.

1. Biofyzikalni ustav fakulty vseobecneho lekarstvi KU v Praze,
prednosta doc. dr. Zd. Dienstbier.
(BURNS) (SODIUM) (POTASSIUM) (CHLORIDES)

Rakovic, M.

"Activation analysis handbook" by R.C. Koch. Reviewed by M. Rakovic.
Coll Cz Chem 27 no.2:512-513 F '62.

RAKOVIC, Miloslav; TALPOVA, Helena

Preparation of standards for neutron activation analysis.
Chem listy 57 no.11:1183-1186 N '63.

1. Biofysikalni ustav, Fakulta vseobecneho lekarstvi,
Karlova universita, Praha.

SIMIC, B.S.; SIMIC, A.; MARKOVIC, R.; KOVACEVIC, M.; RAKOVIC, V.;
PUTNIK, D.; DIVANOVIC, B.; JOCIC, V.; ANICIC, M.

Diet, blood lipids and other indices of cardiovascular diseases
in 3 regions of Serbia. Acta med. Jugosl. 18 no.3:185-203 '64.

1. Savezni zavod za zdravstvenu zaštitu i Higijenski institut
Medicinskog fakulteta u Beogradu.

SIMIC, Bozidar; MARKOVIC, Ružica; SIMIC, Arsenije; RAJNOVIC, Vera;
MANDIC, Milivoje.

Determination of the frequency of anemia using the hemoglobin
level in rural inhabitants. Srpski arh. celok. lek. 92 no.6:
643-647 Je '64

1. Savezni zavod za zdravstvenu zaštitu u Beogradu (Upravnik:
dr. Herbert Kraus) ; Higijenski institut Medicinskog fakulteta
Univerziteta u Beogradu (Upravnik: prof. dr. Miomir Savicevic).

RAKOVIC, M.

"Neutron activation as analytic means" by W.Schulze. Reviewed
by M.Rakovic. Coll Cz Chem 28 no.11:3168-3169 N'63.

RAKOVIC, M.; DIENSTBIER, Z.

The influence of external irradiation on the density of the blood serum in rats. Physiol Bohemoslov 10 no.5:461-466 '61.

1. Institute of Biophysics, Faculty of General Medicine, Charles University, Prague.
(RADIATION INJURY blood) (BLOOD radiation eff)

RAKOVIC, M.

Neutron activation as analytical agent" by W. Schulze. Reviewed by
M. Rakovic. Chem listy 56 no.12:1464-1465 D '62.

SIMIC, B.S.; MARKOVIC, R.; RAKOVIC, V.; TODOROVIC, P.

Influence of diets with different fat content on nutritional
status. Cesk. hyg. 8 no.3:129-136 Ap '63.

1. Federalni zdravotnický ustav, Belehrad. Ustav hygieny
lekarske fakulty university, Belehrad.
(NUTRITION SURVEYS) (DIETARY FATS)
(HEMOGLOBINOMETRY)
(BLOOD PROTEIN ELECTROPHORESIS)
(BLOOD LIPIDS) (BLOOD PRESSURE)

SIMIC, B.S.; TODOROVIC, P.; MARKOVIC, R.; SIMIC, A.; RAKOVIC, V.

Correlation between body weight, skinfold thickness, percentage of body fat and blood pressure, cholesterol, phospholipids and total plasma lipids. Acta med. iugosl. 16 no.2:121-140 '62.

1. Savezni zavod za zdravstvenu sastitu i Higijenski institut Medicinskog fakulteta u Beogradu.

(BODY WEIGHT) (ADIPOSE TISSUE) (BLOOD PRESSURE)
(BLOOD CHOLESTEROL) (PHOSPHOLIPIDS) (BLOOD LIPIDS)
(GERIATRICS)

BUDESINSKA,M.; RAKOVIC,M.

Determination of sodium metabolism in rats with the radionuclide.
[Na 22] Sborn.lek. (Praha) 66 no.4:105-110 Ap'64

1. Biofyzikalni ustav fakulty vseobecneho lekarstvi University
Karlov,v Praze; prednosta doc.dr. Z.Dienstbier.

*

RAKOVIC, Miloslav

Irradiation of biological tissues and other specimens with neutrons.
I. Activation of biological tissues in the reactor. Sborn. lek. 64
no.7:216-219 J1 '62.

1. Biofyzikalni ustav fakulty vseobecneho lekarstvi University Karlovy
v Praze, prednosta doc. dr. Zd. Dienstbier.
(NEUTRONS) (RADIATION EFFECTS)

RAKOVIC, Miloslav

Irradiation of biological tissues and other specimens with neutrons.
II. Use of polonium-beryllium source for activation of liquid samples.
Sborn. lek. 64 no.7:220-224 J1 '62.

1. Biofyzikalni ustav fakulty všeobecného lekarství University Karlovy
v Praze, prednosta doc. dr. Zd. Dienstbier.
(NEUTRONS) (POLONIUM) (BERYLLOUM)
(RADIATION EFFECTS)

RAKOVIC, M.

Determination of gold in biological material by the method
of neutron activation analysis. Cesk. rentgen. 17 no.5:
299-305 S '63.

1. Biofyzikalni ustav fakulty vseobecneho lekarstvi KU v Praze,
prednosta doc. dr. Z. Dienstbier.
(BIOLOGICAL ASSAY) (NEUTRONS)
(GOLD ISOTOPES) (GOLD COLLOID, RADIOACTIVE)

RAKOVIC, M.; TALPOVA, H.

Use of nondestructive activation analysis for determination
of sodium in biological material. Cas. lek. cesk. 103 no.23:
632-635 5 Je'64

1. Biofyzikalni ustav fakulty všeobecného lekarství KU
[Karlov university] v Praze; prednosta: doc.dr. Z. Dienstbier.

L 31588-66

ACC NR: AP6022956

SOURCE CODE: CZ/0008/65/000/009/1038/1046

AUTHOR: Rakovic, Miloslav

ORG: Department of Medical Physics and Nuclear Medicine, Faculty of General Medicine,
Charles University, Prague (Katedra lekarske fysiky a nuklearni mediciny fakulty
vseobecneho lekarstvi Karlovy university)

TITLE: Problems of interference in neutron activation analysis

SOURCE: Chemicke listy, no. 9, 1965, 1038-1046

TOPIC TAGS: spectrographic analysis, spectral line, isotope, isomer, neutron

ABSTRACT: Interference in emission spectrography refers to the difficulty in the identification of a spectrum line of a given element from that of another element. In neutron activation analysis two possible cases may occur: either the interfering radionuclide is identical with the radionuclide liberated by the reaction, or it is an isotope or isomer of another element. In this second case the presence of the interfering nuclide may not be objectionable, and be detected by radiochemical control of the isolated substance. 3 interference groups are described: primary interference where the interfering nuclide is liberated by the reaction of the nuclei with the activated neutrons; secondary where a neutron displaces a proton from the nucleus and this particle then activates another nucleus thereby producing an interfering radionuclide and finally the interference caused by natural radioactivity. Orig. art. has: 1 figure and 11 formulas. [JPRS]

SUB CODE: 20, 18 / SUBM DATE: none / ORIG REF: 001 / OTH REF: 010

Cord 1/1 PLG

0915

10-39

L 36044-66

ACC NR: AP6027375

SOURCE CODE: CZ/0043/66/000/004/0293/0298

AUTHOR: Rakovic, Miloslav--Rakovich, M. (Engineer; Candidate of sciences; Prague); ⁴⁴ Prochazkova, Zdenka--Prochazkova, Z. (Prague) ⁴⁵

ORG: Department of Medical Physics and of Nuclear Medicine, Faculty of General Medicine, Charles University, Prague (Katedra lekarsko fysiky a nuklearni mediciny Fakulty vseobecneho lekarstvi Karlovy University)

TITLE: Study of precipitation methods in neutron activation analysis (I). Coprecipitation of sodium during precipitation of potassium perchlorate ¹⁹

SOURCE: Chemicke zvesti, no. 4, 1966, 293-298

TOPIC TAGS: chemical precipitation, perchlorate, sodium, gravimetry

ABSTRACT: The importance of using the correct amount of the retaining carrier in neutron activation analysis is stressed. An excessive amount of sodium used as a retaining carrier increases the amount of radioactive sodium which is coprecipitated during the precipitation of potassium perchlorate. When this precipitation is made at cold and with a suitable concentration of the solution very little of Na is coprecipitated. This method of radiochemical separation of K is better than the classical method used in gravimetric separation. Orig, art. has: 3 figures. JPRS: 36,4647
SUB CODE: 07, 20 / SUBM DATE: 03Jun65 / ORIG REF: 001 / OTH REF: 002

Card 1/1 1114

0917 0502

Biophysics

CZECHOSLOVAKIA

UDC: 545.53 539.1.07

RAKOVIC, Milosla; PROCHAZKOVA, Zdenka; Chair of Medical Physics and Nuclear Medicine, Faculty of General Medicine, Charles University (Katedra Lekarske Fyziky a Nuklearni Mediciny, Fakulty Vseobecneho Lekarstvi Karlovy University), Prague.

"Evaluation of Accuracy of a Correction Factor Proposed in the Past for its Practical Application in Activation Analysis."

Prague, Jaderna Energie, Vol 12, No 10 Oct 66, pp 384 - 386

Abstract: The authors discuss practical applications of the correction relation in activation analysis, as it was proposed in the past. The error due to the approximation in the derivation of this relation, and the influence of the inaccuracy in the determination of the values used in the equations for the determination of the ultimate results of the analysis, are evaluated. A practical application of authors' calculation method is demonstrated on an example of the calculation of the influence of K⁴² on the determination of the gamma activity of Na²⁴. 3 Figures, 3 Czech, 1 Russian reference. (Manuscript received 22 Oct 65).

1/1

ACC NR: AP7010703

SOURCE CODE: CZ/0038/66/000/010/0384/0386

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ORG: Department of Medical Physics and Nuclear Medicine, Faculty of General Medicine, Charles University, Prague (Katedra lekarske fyziky a nuklearni mediciny fakulty vseobecneho lekarstvi karlovy university)

TITLE: Accuracy evaluation of the formerly proposed correction factor for its practical application in activation analysis

SOURCE: Jaderna energie, no. 10, 1966, 384-386

TOPIC TAGS: neutron activation analysis, approximation error, medical nuclear application

SUB CODE: 20,06

ABSTRACT: Practical application of the formerly proposed correction relation in activation analysis was studied. Both the error originated by the approximation in deriving this relation, and the influence of exactness in determining values introduced to it on the exactness of the result of analysis are evaluated. Orig. art. has: 3 figures and 10 formulas. Paper presented by V. Dedek. [NA]

Card 1/1

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Warsaw, Chemia ogólnego, No 1 [Jan/Feb] 1967, pp 9-12

"Influence of a sodium holdback carrier on the radiochemical
separation of potassium as its perchlorate."

L 1372-66 EPF(n)-2/EWP(t)/EWP(b)/EWA(h) JD

ACCESSION NR: AP5024533

CZ/0043/64/000/010/0750/0755

AUTHOR: Rakovic, M. (Rakovich, M.) (Prague); Talpova, H. (Talpova, G.) (Prague)

TITLE: Determination of sodium in biological fluids by means of the neutron activation analysis

SOURCE: Chemicke zvesti, no. 10, 1964, 750-755

TOPIC TAGS: radiation chemistry, analytic chemistry, biochemistry, sodium, neutron

ABSTRACT: A destructive method is described of determining sodium in biological fluids. Samples are sealed in polyethylene covering. After activation their activity, including the covering, is measured by a scintillation probe using copper filters. Described is a method of mathematical evaluation of the effect of the activity of the covering, including the background. Orig. art. has: 5 formulas, 1 table.

ASSOCIATION: Katedra lekarske fyziky a nuklearni mediciny, Fakulta všeobecného

Card 1/2

L 1372-66
ACCESSION NR: AP5024553

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SUBMITTED: 05May64

ENCL: 00

SUB CODE: LS, NP

NR REF Sov: 000

OTHER: 007

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Card 2/2 dg

L 00182-66 EWT(m) DIAAP
ACCESSION NR: AP5025572

CZ/0038/65/000/003/0182/0183

AUTHOR: Rakovic, Miloslav

TITLE: Application of neutron activation analysis for determining properties of
organic materials

SOURCE: Jaderna energie, no. 5, 1965, 182-183

TOPIC TAGS: neutron, organic chemistry, analytic chemistry, nondestructive test

ABSTRACT: Neutron activation analysis was used to determine elements bound in
organic compounds as well as to determine trace impurities. It is especially
convenient that in the activation of organic samples the level of activity was
usually lower than with samples of inorganic materials. Also, self absorption
of neutrons (self shielding) was usually not a source of error. With low levels of
total activity, it is possible, as a rule, to carry out the determination nondestructively,
i.e., without chemical dissolution of the sample and separation of the
individual elements. However, organic materials may suffer chemical changes from
the effects of the radiation. Therefore, some authors prefer the direct method to
the nondestructive method.

ASSOCIATION: Katedra lekarske fyziky a nuklearni mediciny fakulty vseobecnsko

Card 1/?

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ACCESSION NR: AP5025572

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Medicine, Faculty of General Medicine, Charles University)

SUBMITTED: 00

ENCL: 00

SUB CODE: GG, NP

NO REF SOV: 002

OTHER: 026

NA

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Card 2/2.

RAKOVIC, M.; ANDRYSEK,O.; TALPOVA,H.

Neutron activation analysis in isotope therapy. Cas.lek.
cesk. 103 no.1:14-18 3 Ja'64.

1. Biofyzikalni ustav fakulty vseobecneho lekarstvi KU v
Praze; prednosta: doc.dr.Zd.Dienstbier.

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